

WHAT IS CLAIMED IS:

1. A data conversion system including a terminal device belonging to a first communication network, a server device belonging to a second communication network having a protocol different from that of said first communication network and a protocol conversion device provided at a connection point between said first communication network and said second communication network for conducting protocol conversion, comprising:  
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data conversion means for receiving constraint information peculiar to said terminal device added to a request from said terminal device for obtaining predetermined contents from said server device and converting predetermined contents obtained from said server device into data based on said constraint  
10 information.

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2. The data conversion system as set forth in claim 1, wherein

said data conversion means determines whether predetermined contents obtained from said server device are image data or not and when said predetermined contents are image data, converts said predetermined contents into data based on said constraint information.  
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3. The data conversion system as set forth in claim  
1, wherein

    said data conversion means is provided at said  
protocol conversion device.

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4. The data conversion system as set forth in claim  
1, further comprising

    storage means for storing said constraint  
information from said terminal device, wherein  
5       said data conversion means converts predetermined  
contents obtained from said server device based on said  
constraint information stored in said storage means.

5. The data conversion system as set forth in claim  
1, wherein

    said protocol conversion device includes:

    said data conversion means and

5       storage means for storing said constraint  
information from said terminal device,

    said data conversion means converting  
predetermined contents obtained from said server device  
based on said constraint information stored in said  
10      storage means.

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6. The data conversion system as set forth in claim  
1, wherein

    said data conversion means is provided at said

server device.

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7. The data conversion system as set forth in claim  
1, wherein

said protocol conversion device transmits said  
request received from said terminal device and said  
5 constraint information added to said request to said  
server device, and

said server device includes storage means for  
storing said constraint information from said protocol  
conversion device and said data conversion means for  
10 converting said predetermined contents based on said  
constraint information stored in said storage means.

8. The data conversion system as set forth in claim  
1, wherein

said constraint information includes at least one  
of size information of images and gradation information  
5 of images.

9. The data conversion system as set forth in claim  
1, wherein

said first communication network is a  
communication network for portable information terminals  
5 and said second communication network is the Internet.

10. A data conversion method in a data conversion

system including a terminal device belonging to a first communication network, a server device belonging to a second communication network having a protocol different from that of said first communication network and a protocol conversion device provided at a connection point between said first communication network and said second communication network for conducting protocol conversion, comprising the steps of:

10 adding constraint information peculiar to said terminal device to a request from said terminal device for obtaining predetermined contents from said server device and transmitting the obtained request to said protocol conversion device, and

15 receiving said constraint information from said terminal device to convert predetermined contents obtained from said server device into data based on said constraint information.

11. The data conversion method as set forth in claim 10, wherein

5 said data conversion step includes the steps of:  
determining whether predetermined contents obtained from said server device are image data or not,  
and

when said predetermined contents are image data,  
converting said predetermined contents into data based on said constraint information.

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12. The data conversion method as set forth in claim  
10, wherein

5 said constraint information includes at least one  
of size information of images and gradation information  
of images.

13. The data conversion method as set forth in claim  
10, wherein

5 said first communication network is a  
communication network for portable information terminals  
and said second communication network is the Internet.

14. A computer readable memory which stores a data  
conversion program for executing data conversion in a  
data conversion system including a terminal device  
belonging to a first communication network, a server  
5 device belonging to a second communication network  
having a protocol different from that of said first  
communication network and a protocol conversion device  
provided at a connection point between said first  
communication network and said second communication  
network for conducting protocol conversion,  
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said data conversion program comprising the steps  
of:

adding constraint information peculiar to said  
terminal device to a request from said terminal device

15 for obtaining predetermined contents from said server device and transmitting the obtained request to said protocol conversion device, and

20 receiving said constraint information from said terminal device to convert predetermined contents obtained from said server device into data based on said constraint information.

15. The computer readable memory which stores a data conversion program as set forth in claim 14, wherein

5 said data conversion step of said data conversion program includes the steps of:

determining whether predetermined contents obtained from said server device are image data or not, and

when said predetermined contents are image data, converting said predetermined contents into data based 10 on said constraint information.

16. The computer readable memory which stores a data conversion program as set forth in claim 14, wherein

5 said constraint information includes at least one of size information of images and gradation information of images.

17. The computer readable memory which stores a data conversion program as set forth in claim 14, wherein

5           said first communication network is a  
communication network for portable information terminals  
and said second communication network is the Internet.

18.       A data conversion system including a terminal  
device belonging to a first communication network, a  
server device belonging to a second communication  
network having a protocol different from that of said  
5           first communication network and a protocol conversion  
device provided at a connection point between said first  
communication network and said second communication  
network for conducting protocol conversion, comprising:

10           data conversion unit which receives constraint  
information peculiar to said terminal device added to a  
request from said terminal device for obtaining  
predetermined contents from said server device and  
converts predetermined contents obtained from said  
server device into data based on said constraint  
15           information.

19.       The data conversion system as set forth in claim  
18, wherein

5           said data conversion unit determines  
whether predetermined contents obtained from said  
server device are image data or not and when said  
predetermined contents are image data, converts said  
predetermined contents into data based on said

constraint information.

20. The data conversion system as set forth in claim  
18, wherein

    said data conversion unit is provided at said  
protocol conversion device.

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21. The data conversion system as set forth in claim  
18, further comprising

    storage unit which stores said constraint  
information from said terminal device, wherein

5       said data conversion unit converts predetermined  
contents obtained from said server device based on said  
constraint information stored in said storage unit.

22. The data conversion system as set forth in claim  
18, wherein

    said protocol conversion device includes:

    said data conversion unit and

5       storage unit which stores said constraint  
information from said terminal device,

    said data conversion unit converting  
predetermined contents obtained from said server device  
based on said constraint information stored in said  
10      storage unit.

23. The data conversion system as set forth in claim

18, wherein

5           said protocol conversion device transmits said request received from said terminal device and said constraint information added to said request to said server device, and

10           said server device includes storage unit which stores said constraint information from said protocol conversion device and said data conversion unit which converts said predetermined contents based on said constraint information stored in said storage unit.

24.       The data conversion system as set forth in claim 18, wherein

5           said constraint information includes at least one of size information of images and gradation information of images.

25.       The data conversion system as set forth in claim 18, wherein

5           said first communication network is a communication network for portable information terminals and said second communication network is the Internet.